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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/660,139	09/10/2003	Jing-Hsiang Hsu	JCLA9793	6888

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J C PATENTS, INC.
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EXAMINER

LUM, LEON YUN BON

ART UNIT PAPER NUMBER

1641

DATE MAILED: 01/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/660,139	Applicant(s) HSU ET AL.	
	Examiner Leon Y. Lum	Art Unit 1641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The Appeal Brief filed 01 November 2005 is acknowledged and has been entered. In light of Applicants' arguments, the case has been reopened for prosecution and new references are applied below.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glazer et al (US 6,824,866 B1) in view of Zeleny et al (US 6,215,894 B1).

Glazer et al reference teaches a method of making a substrate that provides a surface area for polymers to attach to the substrate (i.e. a fabrication method for a biochip), comprising the step of forming a porous film layer of silica on an underlying substrate (i.e. covering a surface of the micro-carrier with a silicon dioxide layer). See column 1, lines 28-34, 43-46; column 2, lines 14-20; column 6, lines 23-31; and column 9, lines 30-32. Glazer et al also teach the step of silyating the porous region with bis (2hydroxyethyl)-3-aminopropyltriethoxysilane to prepare the surface for oligomer synthesis (i.e. reacting a surface of the silicon dioxide layer with 3-aminopropyltriethoxysilane to modify the surface of the silicon dioxide layer into an aminated surface). See column 2, lines 31-34; column 11, lines 37-43; and column 22, lines 18-26. In addition, Glazer et al teach that after derivatization of the porous substrate, the surface is contacted with linking molecules that serves as a synthesis initiation site, wherein polypeptides are synthesized (i.e. performing a solid-phase peptide synthesis step to synthesize a peptide with a specific amino acid sequence on

the aminated surface of the silicon dioxide layer). See column 1, lines 31-36; column 13, line 62 to column 14, line 7; and column 18, lines 48-52.

However, Glazer et al fail to teach the step of providing an identification code on the micro-carrier.

Zeleny et al reference teaches the step of imprinting a number code identifier and a barcode on a biochip array, in order to provide a link to a computer that can determine the type and location of reagents and fluorescent tags in the biochip array and which experimental protocols to run on the biochip array. See column 2, lines 14-33.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Glazer et al with step of imprinting a number code identifier and a barcode on a biochip array, as taught by Zeleny et al, in order to provide a link to a computer that can determine the type and location of reagents and fluorescent tags in the biochip array and which experimental protocols to run on the biochip array. The advantage of identifying the parameters of a specific biochip among many biochips is motivation to combine the number code identifier and barcode of Zeleny et al with the method of Glazer et al. In addition, one of ordinary skill in the art at the time of the invention would have had reasonable expectation of success in combining the step of placing a number code identifier and barcode on a biochip, as taught by Zeleny et al, with the method of Glazer et al, since Glazer et al teach a physical device that can have an identifier and barcode placed thereon.

Art Unit: 1641

6. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glazer et al (US 6,824,866 B1) in view of Zeleny et al (US 6,215,894 B1) as applied to claim 1 above, and further in view of Chen et al (US 6,638,760 B1).

Glazer et al and Zeleny et al references have been disclosed above, and Glazer et al additionally teach that the underlying substrate can be a polymer. See column 5, lines 34-36. However, Glazer et al and Zeleny et al fail to teach that the material for forming the micro-carrier is a high molecule weight material or polyethylene terephthalate.

Chen et al reference teaches polyethylene terephthalate and ultra-high molecular weight polyethylene as substrates, in order to provide a substrate that will not deform and remain solid while in use with solvents. See column 6, lines 37-67.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Glazer et al and Zeleny et al with polyethylene terephthalate and ultra-high molecular weight polyethylene as substrates, as taught by Chen et al, in order to provide a substrate that will not deform and remain solid while in use with solvents. The advantages of keeping the substrate's form and structure during exposure to solvents, as taught by Chen et al, provide motivation to substitute the underlying substrate of Glazer et al and Zeleny et al with polyethylene terephthalate or ultra-high molecular weight polyethylene. In addition, one of ordinary skill at the time of the invention would have had reasonable expectation of success in applying polyethylene terephthalate or ultra-high molecular weight polyethylene substrates, as taught by Chen et al, as the underlying substrate of Glazer et al and Zeleny et al, since

Art Unit: 1641

Glazer et al and Zeleny et al teach that the underlying substrate can be a polymer, and the polyethylene terephthalate or ultra-high molecular weight polyethylene substrates are examples of polymers.

Response to Arguments

7. Applicant's arguments, see pages 3-7 of the Appeal Brief, filed 01 November 2005, with respect to the rejection(s) of claim(s) 1 and 3-5 under 35 U.S.C.103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Glazer et al (US 6,824,866 B1), Zeleny et al (US 6,215,894 B1), and Chen et al (US 6,638,760 B1) references. See the rejections under 35 U.S.C.103(a) supra.

Conclusion

8. No claims are allowed.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leon Y. Lum whose telephone number is (571) 272-2878. The examiner can normally be reached on weekdays from 8:00am-5:00pm.

Art Unit: 1641

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on (571) 272-0823. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Leon Y. Lum
Patent Examiner
Art Unit 1641



LYL



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1/19/06